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Ohio State Engineer

Title: Back Matter

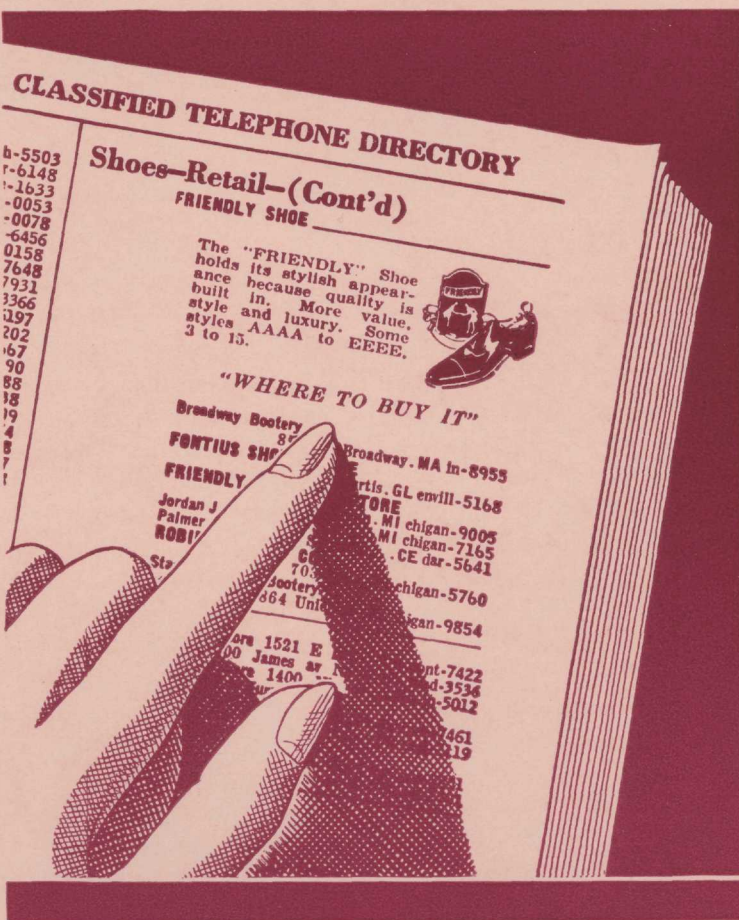
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A strategic point *in the battle for sales*

Today's intense competition calls for new and more effective merchandising methods. Several plans pioneered by Bell System men are proving helpful.

For example: the "Where to Buy It" section of the telephone book. Here local dealers are listed beneath the trade marks of advertised products—such as Plymouth, Greyhound Lines, Exide, RCA Victor. This service helps manufacturers to reduce substitution, helps dealers to increase sales, helps *you* to locate the brand you want.

BELL SYSTEM



**TAKE A TRIP HOME BY TELEPHONE
—TONIGHT AT HALF-PAST EIGHT!**

CLYDE T. MORRIS

BROWN HALL

CAMPUS

G-E Campus News

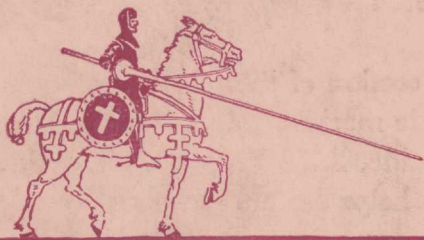


TALK FOR TRAINS

On a track near Schenectady, a few weeks ago, several visiting trade-journalists sat in a test car. From a loudspeaker in this car came a running stream of information. The voice was that of a G-E engineer in a "station" a half-mile down the track. Sample remarks:

"Believing that we could help railroads to speed the movement of freight trains, G.E. has now produced this device — a new system of communication. It's not radio, but, in principle, direct telephony. It's a distant cousin of the carrier-current communication that power companies use. They talk over the power lines; we use the rails, plus any wire line along the track. Now, the man in the caboose can talk with the man in the cab. It also works between trains up to 5 miles apart, and between trains and stations. Loudspeaker reception overcomes the train noises. Can you hear me all right?" They could.

Dr. Ernst Alexanderson, a G-E Consulting Engineer, is responsible for this development. He is a 1900 graduate of the Kungliga Tekniska Högskolan, Stockholm, Sweden. Incidentally, a partial indication of his versatility in engineering design will be found in the U.S. Patent Office, through which he has been granted more than 200 patents.



A RÖNTGEN WARRIOR

For the doctors who are waging continuous warfare against the dread, lurking specter of cancer, G-E research men believe they have provided another shining sword. Again they have produced the most powerful x-ray tube ever built—this time, for continuous operation in practical cancer therapy

at the Mercy Hospital, Chicago. Dr. E. E. Charlton, Grinnell College, '13, is the man who directed the production of this tube.

The giant tube (brother under the glass to those in your radio) measures more than 14 feet in length, is rated 800,000 volts, will treat patients in a fraction of the time required by the last "most powerful" one, has x-ray radiation equivalent to \$75,000,000 worth of radium (if there is that much!) and needs 20 gallons of Lake Michigan's coldest water every minute to keep cool.

It's a pleasure to make good motors and good lamps. It's a greater pleasure to help alleviate human ills—all in the line of duty! More tubes are on the way.



SMOKE IN THE EYE

An eye in the stack is worth two on the ground. So thought G-E engineers as they finished mulling over the smoke-nuisance problem of power and heating plants.

A light source and a photoelectric-relay unit were installed in stacks in Chicago and New Jersey. They are so arranged that when the stack is clear, light falls on the phototube; a meter or recording instrument registers zero smoke density. As the density increases, the phototube receives less light and indicates an increase in density. An adjustable electric contact is provided to operate an alarm. (A running record of the amount of smoke passed up the stack could be obtained by adding a recorder.) Thus, the "electric-eye," which is not affected by cinders and is never closed in sleep, has found another way to be of service.

Two G-E engineers, W. R. King and Pieter Juchter, developed this new smoke-density indicator. King is a '28 graduate of the U. of Kentucky, and Juchter a '24 graduate of the Eidgenössische Technische Hochschule, Zürich, Switzerland.



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GENERAL ELECTRIC